

The **Travel** Model *Improvement* Program



Helping Agencies Improve Their Planning Analysis Techniques

TMIP
Travel Model Improvement Program



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Helping Agencies *Improve* their Planning Techniques



Today as communities debate growth policies, traffic congestion, urban design and air quality issues—all have recognized the need for better information about the potential impacts and trade-offs of transportation alternatives. The Travel Model Improvement Program (TMIP) helps planning agencies improve the techniques they use to inform their decision makers on how growth in population and employment, development patterns, and investments in transportation infrastructure are likely to affect travel, congestion, air quality, and quality of life.

The TMIP *Mission*

“Support and empower planning agencies, through leadership, innovation and support of travel analysis improvements, to better meet current and future mobility, environmental, safety and security goals.”



Travel analysis refers to many things. Traditionally travel demand forecasting and air quality analysis have been the focus of TMIP’s activities. However, as transportation planning evolves, it is crucial that TMIP support enhancements in other analysis techniques as well, including:

- ▶ Data Collection
- ▶ Land Use Forecasting
- ▶ Environmental Impact Assessment
- ▶ Transportation Safety Analysis
- ▶ Security and Emergency Event Analysis





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TMIP *Goals* and Activities

TMIP provides a wide range of services to help planning agencies improve their travel analysis techniques. TMIP activities focus on a well-defined set of goals that are flexible enough to adapt to the changing needs of transportation planners.



1

To help planning agencies build their institutional capacity to perform travel related technical analyses

- ▶ Maintain clearinghouse and Web site
- ▶ Deliver training and technical assistance
- ▶ Facilitate communication
- ▶ Conduct outreach

Providing travel forecasting training for planning staff

Caltrans improves staff capabilities by utilizing TMIP seminars and training courses

“TMIP has been very valuable to the California Department of Transportation (Caltrans) both in providing a forum for the exchange of ideas and in providing training opportunities. One item of particular note was the recent TMIP Model Validation and Calibration seminar. This class provided many of the students with their first opportunity to learn these important skills, which are often overlooked in the rush to complete projects. We appreciate these training opportunities and look forward to many more.”

–Charles Chenu, Senior Transportation Planner, Caltrans



2

To develop analytical methods that respond to the needs of planning and environmental decision making processes

- ▶ Identify analytical needs
- ▶ Conduct basic research
- ▶ Develop tools, techniques, procedures

3

To support mechanisms to ensure the quality of technical analysis used to meet Federal program requirements

- ▶ Compile forecasting requirements
- ▶ Provide support for Federal reviews
- ▶ Provide incentives for exemplary practice

Providing a forum for expert peer exchange

Atlanta Regional Commission (ARC) recognizes benefits from participation in the TMIP email list, an email-based peer exchange.

ARC, the metropolitan planning organization (MPO) for the Atlanta, Georgia region, is continuously improving their travel forecasting models. “To ensure that we are spending our funds wisely, our staff needs to know what travel forecasting techniques have been successful in other areas before we initiate model improvement projects. Our staff utilizes the TMIP email list, to keep up with the state of the practice in travel forecasting.”

—Guy Rousseau, Program Manager, Transportation Division, ARC



Informing new model deployments

TMIP gives New York Metropolitan Transportation Commission (NYMTC) information they can use in creating an enhanced new model system.

NYMTC recently completed development of the New York Best Practice Model (NYBPM). NYMTC chose to develop a journey-based forecasting system that simulates individual travelers' decisions and behavior. Included within the NYBPM is a population synthesizer based on the TRansportation ANalysis SIMulation System (TRANSIMS), a highly advanced travel modeling technology created by TMIP with the Department of Energy and the Los Alamos National Laboratory.

"We chose the micro-simulation approach for our region primarily due to the huge size of the transportation system and the complexity of travel behavior in the New York region. We quickly discovered, however, the benefits of the more logical and defensible behavioral models that stem from this disaggregate approach. Being aware of the TRANSIMS experience through TMIP, certainly helped us in making this and other important decisions in the development of the advanced components of the NYBPM."

—Kuo-Ann Chiao, Director of Technical Service, NYMTC

Providing technical assistance to Federal staff

FHWA, FTA and EPA staff benefit from travel forecasting workshops

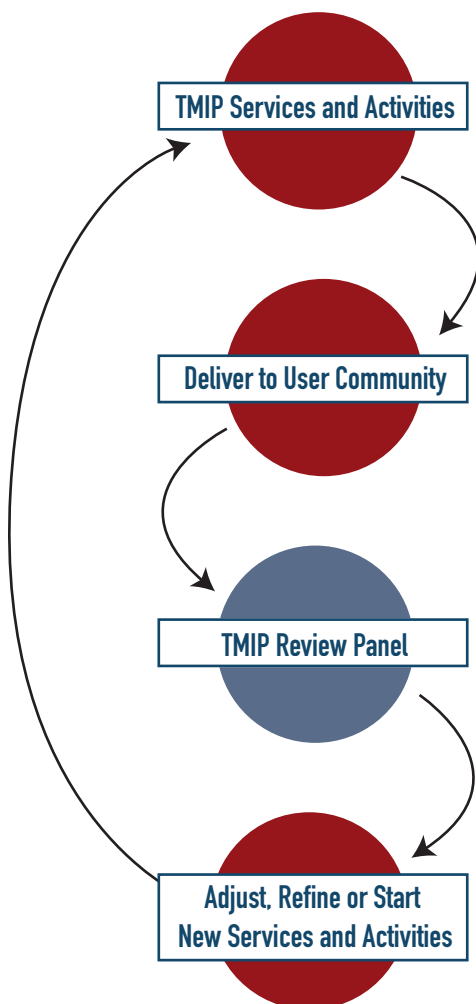
Over the past year, TMIP staff has conducted 1-day workshops for Federal field staff who are responsible for transportation conformity determinations. The goal of the workshop is to give the staff a background in travel demand forecasting applied to conformity analysis so they can make more informed decisions.

"The workshop was very useful in introducing how travel demand modeling supports transportation conformity determinations. I would highly recommended this workshop as an introductory session for any Federal staff associated with transportation and air quality planning."

–Mark Bechtel, Community Planner, Federal Transit Administration,
Region VII, Kansas City, MO



User Feedback and Program *Performance* Monitoring



User Feedback: *The TMIP Review Panel*

TMIP receives input and direction from its user community via the TMIP Review Panel. The panel consists of transportation planning practitioners, managers and researchers from across the U.S. They represent planning agencies at the state and regional levels, universities, transit operators, environmental organizations and air quality agencies.

Monitoring Performance: *The TMIP Performance Report*

For each goal of the TMIP, performance measures have been developed. The TMIP Performance Report will be delivered to the TMIP Review Panel and the public every 2 years, and will address all aspects of the TMIP program.

Better Transportation Planning Analysis Through *Partnerships*

TMIP is a partnership. The Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Office of the Secretary of Transportation (OST) and the Environmental Protection Agency (EPA) cooperatively fund and support TMIP to conduct research and deliver technical assistance and training to transportation planning professionals. In addition, TMIP partnered with the Department of Energy and the Los Alamos National Labs on a large research and development effort, which resulted in the creation of the TRANSIMS technology.

TMIP shares many of its objectives with other stakeholder groups and national organizations. TMIP works cooperatively with the Metropolitan Capacity Building Program (MCB), which is focused on enhancing the capabilities of State and local transportation staffs to meet planning requirements and needs. TMIP also works with the Association of Metropolitan Planning Organizations (AMPO) and the American Association of State Highway and Transportation Officials (AASHTO).





TMIP: *How to Access* Services

The most current documents, training opportunities, and other TMIP services can be accessed through the TMIP Web site.

Just go to:

<http://tmip.fhwa.dot.gov>

Or call or email Michael Culp:

michael.culp@fhwa.dot.gov

202-366-9229